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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,258	05/10/2005	Tadashi Oshiyama	2346-0111PUS1	4981
2292	7590	10/04/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			VU, JIMMY T	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/534,258	OSHIYAMA ET AL.	
	Examiner	Art Unit	
	Jimmy T. Vu	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-25, 31, 40 and 41 is/are allowed.
- 6) ☒ Claim(s) 22, 29, 30 and 32-35 is/are rejected.
- 7) ☒ Claim(s) 26-28 and 36-39 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/10/05</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 22, 29, 30 and 32-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Thursby (U.S. Patent number 6,486,844).

Regarding claim 22, Thursby discloses an antenna (10, 50) (Figs. 1 and 5-10) for multiple bands, characterized in that one end of an antenna element is electrically connected to a feeding point (45) (Figs. 5-10), one ends of switches (38) (Fig. 4) are connected respectively to at least one intermediate point and the other end of said antenna element, the other ends of these switches are connected respectively to a ground conductor (16) (Figs. 5-10) with or without an extension coil or a short coil inserted in series therebetween, different electrical lengths from said feeding point via said switches closed up to electrical connections to said ground conductor are set to be capable of resonating different desired frequency bands respectively, and resonant frequencies with which different electrical lengths of said antenna element from said feeding point up to the connections to said switches resonate are set not to come close to one of said frequency bands with which the electrical length from said feeding point up to the connection to said ground conductor via any other switch closed resonates (Figs. 1-10, col. 6, lines 1-67).

Regarding claim 29, Thursby discloses an antenna (10, 50) for multiple bands, characterized in that said antenna element is inherently formed in a meandering pattern.

Regarding claim 30, Thursby discloses an antenna (10, 50) for multiple bands, characterized in that said antenna element is inherently formed on the surfaces of a dielectric.

Regarding claim 32, Thursby discloses an antenna (10, 50) for multiple bands, characterized in that said ground conductor (16) is formed in an approximate rectangle and said antenna element is formed, bordering on one short side of said rectangle, separated from said ground conductor (Figs. 1 and 5-10).

Regarding claim 33, Thursby discloses an antenna (10, 50) for multiple bands, characterized in that said ground conductor is formed in an approximate rectangle on a flat substrate and said antenna element is formed on said substrate, bordering on one short side of said rectangular ground conductor, separated from said ground conductor (Figs. 1 and 5-10).

Regarding claims 34 and 35, Thursby discloses an antenna (10, 50) for multiple bands, characterized in that said ground conductor is formed in a rectangle, said antenna element is formed, bordering on one short side of the rectangle, separated from said ground conductor, and said antenna element is formed in a meandering pattern turned around repeatedly in a direction parallel to the long (or short) sides of said rectangular ground conductor (Figs. 1 and 5-10).

***Allowable Subject Matter***

3. Claims 23-25, 31, 40 and 41 are allowed.

4. Claims 26-28 and 36-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the prior art teaches the antenna for multiple bands characterized in that one ends of different series or parallel resonant circuits, each comprising the capacitor and the coil, and the filters are connected respectively to at least one intermediate point and the other end of the antenna element, the other ends of these series resonant circuits are connected respectively to the ground conductor with or without the extension coil or the short coil inserted in series therebetween.

#### ***Information Disclosure Statement***

5. The references listed on the information disclosure statement submitted on 05/10/2005 have been considered.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T Vu whose telephone number is (571) 272-1832. The examiner can normally be reached on M - F: 9 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.

Jimmy Vu

September 22, 2006



**TUYET VO**  
**PRIMARY EXAMINER**